REMARKS

Claims 1-12 were pending and under consideration.

In the Office Action of October 3, 2006, claims 1-12 were rejected in view of various prior art references. Additionally, claims 6 and 12 were rejected in view of an informality. Importantly, no patentable weight was given to the step of producing the claimed composition, namely: "a composite material formed through applying a compressive force and a shearing force to at least a part of a surface of a base material including at least one kind selected from Group 14 elements, except for carbon (C) … ."

In addition to the foregoing, the examiner noted the inadvertent claiming of priority in the inventors' declaration. A supplemental declaration will be submitted as soon as it becomes available.

In response, claims 1, 6, 7, and 12 have been amended to correct the informality and to more correctly state that the claimed composite material is the result of the compressive force application and shearing action.

The use of the compressive force and the shearing action to combine the base material and the Group 14 element apparently produces a material with fused particles with chemical properties different than its constituent ingredients by way of a mechanical and chemical reaction. The resultant material exhibits properties not obtainable by mere mixing or milling. Indeed, a machine is available that produces such effects. See the website of the Hosokawa Micron Ltd. at http://www.hosokawa.co.uk/mechanofusion.php, a printout of which is attached as Exhibit 1. Also attached as Exhibit 2 is a Hosokawa brochure that shows at page 3 a particle resulting from the compressive and shearing action on two different ingredient particles.

These new material properties are also described in The European Journal of Contamination Control's website at http://www.cleanroom-technology.co.uk/story.asp?storyCode=19080 (printout attached as Exhibit 3) from which the following is excerpted:

> Significant changes in the properties of the original particles can be observed, including electrical conductivity, flowability, solubility, wetability and shape.
>
> Pioneered by Hosokawa Micron in Japan through the development of its Angmill, the Mechanofusion system generates surface fusion through a combination of high shear and compression forces acting on the particles. This system is now being used in a number of industries, including inhaled medicines.

An example of the effects achievable with dry coating in the Hosokawa Mechanofusion system is PMMA particles in the size range 5-15mm coated with TiO_2 (15-50nm). These show a change in flow properties when Mechanofused, which is indicated by the angle of repose as measured using a micron powder tester. It should be noted that the angle of repose shows a strong relation to shell thickness. Below 13nm shell thickness of TiO_2 the angle is seen to increase.

The cited references at best disclose milling and/or mixing of the claimed ingredient materials. None discloses or fairly suggest particles or a material resulting from the application of a compressive force and shearing action as claimed. Therefore, none of the references or any combination of them fairly discloses or suggests the claimed subject matter of any of claims 1-12.

Accordingly, it is submitted that claims 1-12 are patentable, and that the application is in condition for allowance. Notice to the effect is requested, once the supplemental declaration is submitted.

Respectfully submitted,

Dated: January 3, 2007

By: /David R. Metzger/

David R. Metzger (Reg. No 32,919)
SONNENSCHEIN NATH & ROSENTHAL
P.O. Box 061080
Wacker Drive Station - Sears Tower
Chicago, Illinois 60606-1080
Phone: (312) 876-8000